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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,585	09/26/2003	Gilles Gosselin	18085.105102	8655
<div>7590 King &amp; Spalding, LLP 191 Peachtree Street, N.E. 45th Floor Atlanta, GA 30303</div>			<div>EXAMINER CRANE, LAWRENCE E</div>	
			ART UNIT	PAPER NUMBER
			1623	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/09/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,585	<b>Applicant(s)</b> GOSSELIN ET AL.	
	<b>Examiner</b> L. E. Crane	<b>Art Unit</b> 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on july 17, 2006 (amdt).
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 and 9 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 17 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

Claims **12 and 14-16** have been cancelled, claims **1, 3-4, 7-9, 12 and 14-16** have been amended, and new claim **17** has been added as per the amendment received July 27, 2005. No additional Information Disclosure Statements (IDSs) have been received as of the date of this Office action.

Claims **1-9 and 17** remain in the case.

Note to applicant: when a rejection refers to a claim **X** at line **y**, the line number “**y**” is determined from the claim as previously submitted by applicant in the most recent response including ~~lines deleted by line through~~.

This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claims **1-9 and 17** are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim **1** at lines 10-14, the process step has not been completely defined; i.e. is “**B**” an unprotected base, or a protected base, and if the latter, what particular protecting group or groups is/are present. The subsequent definition at lines 17 is incomplete also because the optional protection has not been defined. In addition it is very well known in the nucleoside synthesis art that unprotected bases are not preferred and that protection is essential to achieve reasonable yields. Therefore, the instant process is incomplete for failure to define the different process conditions required depending on whether protection is present or absent.

Applicant’s arguments filed July 17, 2006 have been fully considered but they are not persuasive.

The reliance on functional language (e.g. “condensed”) serves to conceal the chemical step or steps actually being executed. Applicant is encouraged to provide amendments wherein the actual chemical process steps are disclosed. Examiner also respectfully requests the removal of the term “appropriate” from the definitions of **B’** and in the last line of claim **1** because these terms incorrectly imply that the process can be conducted in the absence of protecting groups on the base and on the sugar starting compounds and the related substituent

moieties during the initial and subsequent process steps. If this is not the case, Examiner would like to see a declaration disclosing a detailed description of how the implied "no-protecting group" process is conducted.

The preamble of claim 1 describes a process for making 3 different compounds, but the process steps only disclosed deprotection of the 2'-hydroxyl and removal of same by a deoxygenation process; the claim is incomplete. Applicant is respectfully requested to amend the preamble accordingly or to introduce the additional enabled process steps necessary to permit the other two classes of compounds to be synthesized. This request is made because the instant disclosed embodiments do not include making the listed products in the preamble of claim 1 directly from a protected 2'-deoxy-, 3'-deoxy- or 2', 3'-dideoxysugars as implied by the process as claimed. Therefore, the instant claim is misleading.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new grounds of rejection.

In claim 7 at lines 1-5, the process being claimed has two flaws:

- i) said claim lacks antecedent basis in claim 1 because claim 1 does not provide for conversion of the base moiety U to the base moiety C and
- ii) the steps of particular chemical process being claimed have not been defined thereby rendering the claim incomplete.

Applicant's arguments filed July 17, 2006 have been fully considered but they are not persuasive.

Examiner notes applicant's amendments but does not see any amendments that effectively address the noted problem. The instant claim remains incomplete and the instant rejection has therefore been maintained.

In claim 1 at line 9, the term "characterized in that" appears as a replacement for the normal terms of art in US practice. Since applicant has incorporated the term "further comprising" in dependent claims, examiner suggests that the term -- comprising -- needs to be incorporated herein to replace the noted term in order for the dependent claims to have proper antecedent basis and for the scope of the claimed subject matter to be clearly understood in light of US practice. See also claims 2, 4-6 and 17 wherein the same error reoccurs.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new grounds of rejection.

In claim 1 at line 18, the term "such as" is indefinite because this term suggests an unlimited number of alternatives may be assumed to be present but are not listed. Deletion is respectfully requested.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new grounds of rejection.

In claim 8 the terms "uracil," "thymine" and "cytosine" are the names of compounds. The corresponding substituent groups found in nucleosides are typically -- 1-uracilyl --, --1-thyminyl --, and -- 1-cytosinyl --, respectively. Substitution for the compound names with the substituent names is respectfully requested. See also claims 6, 7 and 9 for the same or similar errors. Parallel amendments of the disclosure would only be considered corrections of technical errors, and would not be considered new matter.

Applicant's arguments with respect to claim 6-9 have been considered but are moot in view of the new grounds of rejection.

Claims 8-9 appear to be allowable as presently in the case.

Claims 1-7 and 17 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. §112.

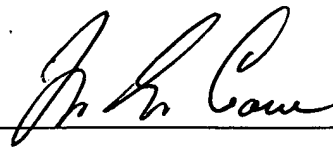
Papers related to this application may be submitted to Group 1600 via facsimile transmission (FAX). The transmission of such papers must conform with the notice published in the Official Gazette (1096 OG 30, November 15, 1989). The telephone number to FAX (unofficially) directly to Examiner's computer is 571-273-0651. The telephone number for sending an Official FAX to the PTO is 571-273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner L. E. Crane whose telephone number is **571-272-0651**. The examiner can normally be reached between 9:30 AM and 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. S. Anna Jiang, can be reached at **571-272-0627**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group 1600 receptionist whose telephone number is **571-272-1600**.

LECrane:lec  
04/01/2007

A handwritten signature in black ink, appearing to read "L. E. Crane", is written over a horizontal line.

L. E. Crane, Ph.D., Esq.

Patent Examiner

Technology Center 1600